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Memorandum

From: Steve Willis **To:** Wayne Miller

Date: November 16, 2016

Subject: Site visit to observe well drilling activities at Former Williams AFB Site

ST012.

Wayne:

This memo summarizes today's visit to Site ST012.

Well UWBZ37/LSZ53 was drilled to at 196-ft.

- No indications of hydrocarbon impact was noted in the vadose zone to a depth of 145-ft.
- From 146 to 148-ft. the cuttings exhibited a slight hydrocarbon odor. A PID reading of 264 ppm was recorded at 147-ft. A dye test at about 147-ft. was negative.
- Both odors and PID readings decreased rapidly below 148-ft. The PID recorded 81.2 ppm at 149-ft. and 6.7 ppm at 151.5-ft.
- PID readings remained <5 ppm until 168-ft., where a reading of 268 ppm was recorded along with slight hydrocarbon odors. A dye test was negative. Slight hydrocarbon odors were noted to about 172-ft., and PID readings decreased rapidly to 2.6 ppm at 175-ft.
- The remaining cuttings to 196-ft. did not exhibit any indications of hydrocarbon impact.

Drilling will continue tomorrow to the anticipated depth of 230-ft.

A second drill rig was operating at well CZ23 in the cell phone lot. The borehole was at 76-ft. at 3 pm and was not expected to reach the groundwater table today. Cuttings to 76-ft. did not exhibit any hydrocarbon odors. AMEC field personnel were unavailable, so I didn't get any PID readings. However, it's unlikely that there were any significant PID concentrations on the cuttings I observed.

I then met Pat to get the information on the installed pumps. Pumps have been installed in the following wells:

- CZ18
- CZ19
- CZ21
- UWBZ22 @ 185-ft.
- UWBZ27 @ 185-ft.
- UWBZ30
- LSZ11 @ 230-ft.
- LSZ39 @ 230-ft.

Please contact me if you have comments or questions regarding this memo.

Standard AWM